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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/555,409	11/03/2005	Kazuhiro Ichimoto	125881	9387
25944	7590	10/10/2007		
OLIFF & BERRIDGE, PLC P.O. BOX 19928 ALEXANDRIA, VA 22320			EXAMINER TRAN, DIEM T	
			ART UNIT 3748	PAPER NUMBER
			MAIL DATE 10/10/2007	DELIVERY MODE PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/555,409

Applicant(s)

ICHIMOTO ET AL.

Examiner

Diem Tran

Art Unit

3748

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 05 June 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-16 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-5, 8, 9, 15 and 16 is/are rejected.
- 7) ☒ Claim(s) 6, 7 and 10-14 is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on _____ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
- 1) ☒ Certified copies of the priority documents have been received.
 - 2) ☐ Certified copies of the priority documents have been received in Application No. _____.
 - 3) ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

This office action is in response to the amendment filed on 6/5/07. In this amendment, claim 14 has been amended and claims 15, 16 have been added. Overall, claims 1-16 are pending in this application.

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 1-3, 8 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawai (JP 10-280990) in view of Suzuki et al. (US Patent 6,595,307).

Regarding claims 1, 2, Kawai discloses a device for restraining the deterioration of a catalytic apparatus of an internal combustion engine characterized in that, when the temperature of the catalytic apparatus arranged in the engine exhaust system is higher than a predetermined temperature in a vehicle deceleration, a fuel-cut of the engine is prohibited and a first motor-generator connected with the vehicle drive shaft is operated as a generator (see translation, abstract, page 4, par. [0023, 0025], page 5, par. [0028, 0031]); however, fails to disclose that said motor/generator is operated as a generator to charge an electrical accumulator. Suzuki teaches that a motor/generator is operated as a generator to charge a battery in a vehicle deceleration when the temperature of the catalytic apparatus arranged in the engine exhaust system is higher than a predetermined temperature (see col. 3, lines 64-66).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Suzuki in the Kawai system, since the use thereof would have improved the vehicle driveability.

Regarding claims 3, 8, Kawai further discloses that a down-shift of an automatic transmission elevates the engine speed when said fuel-cut is prohibited (see translation, page 7, par. [0040]).

Claims 4, 5, 9, 15, 16 are rejected under 35 U.S.C. 103(a) as being unpatentable over Kawai (JP 10-280990) in view of Suzuki et al. (US Patent 6,595,307) as applied to claim 1 above, and further in view of Urasawa et al. (US Patent 6,569,055).

Regarding claims 4, 9, the modified Kawai system discloses all the claimed limitations as discussed in claim 1 above however, fails to disclose that a second motor-generator connected with the output shaft of the engine is operated as a motor to elevate the engine speed when said fuel-cut is prohibited. Urasawa teaches that a second motor-generator connected with the output shaft of the engine is operated as a motor to elevate the engine speed when said fuel-cut is prohibited (see col. 7, lines 40-47, 59-67, col. 8, lines 1-10).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Urasawa in the modified Kawai system, since the use thereof would have maintained desired drivability of the vehicle.

Regarding claim 5, Urasawa further teaches that said second motor generator uses the electrical energy stored in said electricity accumulator (see col. 2, lines 60-62)

Regarding claims 15, 16, the modified Kawai system discloses all the claimed limitations as discussed in claims 1, 8 above however, fails to disclose that a second motor-generator connected with the output shaft of the engine is operated as a motor to elevate the engine speed and said fuel cut is started in the engine when an amount of charge in said electrical accumulator reaches a predetermined value. Urasawa teaches that a motor-generator connected with the output shaft of the engine is operated as a motor to elevate the engine speed and fuel cut is started in the engine when an amount of charge in said electrical accumulator reaches a predetermined value (see col. 8, lines 11-17, col. 9, lines 49-53).

It would have been obvious to one having ordinary skill in the art at the time the invention was made, to have utilized the teaching of Urasawa in the modified Kawai system, since the use thereof would have been conventional in the art.

Allowable Subject Matter

Claims 6, 7, 10-14 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Response to Arguments

Applicant's arguments filed on 6/5/07 have been fully considered but they are moot in view of a new ground(s) of rejection.

Conclusion

Any inquiry concerning this communication from the examiner should be directed

Art Unit: 3748

to Examiner Diem Tran whose telephone number is (571) 272-4866. The examiner can normally be reached on Monday -Friday from 8:00 a.m.- 5:30p.m.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Thomas E. Denion, can be reached on (571) 272-4859. The fax number for this group is (571) 273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 800-786-9199 (toll-free).



Diem Tran
Patent Examiner



THOMAS DENION
SUPERVISORY PATENT EXAMINER
TECHNOLOGY CENTER 3700